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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,131

01/22/2004

Kenneth Von Felten

702-107

6403

20874

7590

03/17/2006

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SYRACUSE, NY 13202

EXAMINER

KASZTEJNA, MATTHEW JOHN

ART UNIT

PAPER NUMBER

3739

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/763,131	Applicant(s) VON FELTEN ET AL.	
	Examiner Matthew J. Kasztejna	Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Notice of Amendment

In response to the amendment filed on December 22, 2005, claims 1-5 and 7-26 stand rejected under 35 USC § 103. The following reiterated grounds of rejection are set forth:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S Patent No. 6,083,152 to Strong in view of U.S Patent No. 4,899,787 to Ouchi et al. in further view of U.S. Patent No. 5,741,429 to Donadio, III et al.

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In regards to claims 1, 7-8, 10, 13-14, 20 and 22-23, Strong discloses a helically wound spiral tube 14; a first braided tube 18 disposed at least partially over the helically wound spiral tube and a first polymeric layer 34 which is applied to the outer layer of the first braided tube (see Figs. 1 and 2). However, Strong is silent with respect to a second braided tube disposed at least partially over the first braided tube and which has a second polymeric layer coating upon itself. Ouchi et al. teach of an analogous flexible tube for endoscope having basic tubular core structures comprising metallic tubular spirals and meshwork tubes positioned alternately one over the other in a multilayered manner (see Fig. 4 and Col. 6, Line 65-Col. 7, Line 10). It would have

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been obvious to one skilled in the art to include a second braided tube in the apparatus of Strong in order to provide a tube with varying properties of flexibility as taught by Ouchi et al. Furthermore, Ouchi et al. and Strong are silent with respect to the braided tube having a wire braid which varies along its length. Donadio, III et al. teach of an analogous flexible tubular device having a multi-wire coil 21 which is capable of being formed in varying configurations, from the angle of the braided wire to the number of filaments the braided wire is composed of. Depending on the braid angle the tube will either be more flexible or stiffer (see Col. 6, Line 52 – Col 7, Line14). It would have been obvious to one skilled in the art to vary the braid angle of the wire braid over the length of the tube in the apparatus of Strong and Ouchi et al. in order to provide a tube with varying flexibility characteristics over its entire length as taught by Donadio, III et al.

In regards to claims 2-5 and 15-16, Strong discloses a helically wound spiral tube wherein the first braided tube includes a wire braid having a braid angle of about or less than about 45 degrees relative to the longitudinal axis of the first braided tube, as seen in Figure 1. It would have been obvious to one skilled in the art at the time the invention was made to construct a second braid, as taught by Ouchi et al. and Donadio, III et al., wherein the second braid included a wire braid of about or greater than about 45 degrees relative to the axis of the second longitudinal axis of the second braided tube in order to have control over the flexibility properties of the tube.

In regards to claims 9, 11-12, 17-19 and 21, Strong discloses a helically wound spiral tube wherein the first braided tube includes a plurality of stainless steel wires or

other suitable materials with similar physical properties as is well-known in the art (see Col. 3, Lines 50-55).

In regards to claims 24-26, Strong discloses a helically wound spiral tube which is used in conjunction with an endoscope to inspect body cavities. The elongate distal tubular insertion section is used for carrying an imaging optical system, such as a CCD imager as is well-known in the art, and an illumination system to illuminate a target site from which image data is transmitted therefrom and displayed on a displayed means, as is well-known in the art (see Col. 1, Lines 9-20).

Response to Arguments

Applicant's arguments filed December 22, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant states that Donadio, III et al. does not list braid angle among the "characteristics " that can be varied to control the flexibility characteristics of the tube. However, Donadio, III et al. teach that it is appreciated that by varying the configuration

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of the multi-wire coil, a coated flexible tubular member 20 of varying characteristics can be formed. For example, making the individual coils more circular will result in a flexible tubular member which has a greater hoop strength and stiffness, while making the individual coils more longitudinally extending will result in less hoop strength but more flexibility (see Col. 6, Lines 52-61). Thus, Donadio, III et al. essentially teaches that by varying the braid angle one can control the flexibility of a tubular member. Furthermore, Donadio teaches of varying the flexibility of the tubular member of the length of the tube, and thus making it obvious to one skilled in the art that varying the two braid angles above and below 45 degrees will result in a tube with varying flexibility characteristics over its length. Donadio teaches the ability to vary the flexibility characteristics of a tube and it is thus considered obvious to one skilled in the art to vary any number of desired tubes in any flexible tube configuration based upon the teaching of Donadio.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Kasztejna whose telephone number is (571) 272-6086. The examiner can normally be reached on Mon-Fri, 8:30-6:00.

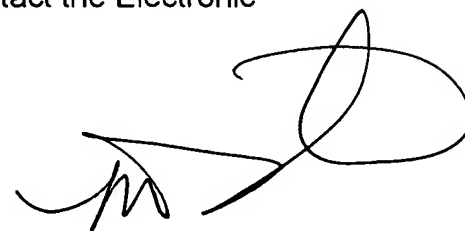
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LINDA C. M. DVORAK
SUPERVISORY PATENT EXAMINER
GROUP 3700